

Northumbria Research Link

Citation: Nagheeby, Mohsen and Warner, Jeroen (2018) The geopolitical overlay of the hydropolitics of the Harirud River Basin. *International Environmental Agreements: Politics, Law and Economics*, 18 (6). pp. 839-860. ISSN 1567-9764

Published by: Springer

URL: <http://dx.doi.org/10.1007/s10784-018-9418-9> <<http://dx.doi.org/10.1007/s10784-018-9418-9>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/id/eprint/36493/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)



Northumbria
University
NEWCASTLE



UniversityLibrary



The geopolitical overlay of the hydropolitics of the Harirud River Basin

Mohsen Nagheeby¹ · Jeroen Warner²

Accepted: 26 October 2018
© The Author(s) 2018

Abstract

This paper explores the geopolitical overlay that is shaping dynamic hydropolitical interactions of the Harirud River Basin, which is a basin that spans Afghanistan, Iran and Turkmenistan. This paper argues that the control and capture of water resources are not solely for economic development but rather for geopolitical reasons that serve the security interests of the actors involved, particularly outside-basin powers like the US and India. The Afghan Government similarly views dams as symbols of nation-building and a way of staying in power. In the absence of a lasting trilateral agreement, the existing nature of the geopolitical dynamics of the basin has led upstream Afghanistan and downstream Iran and Turkmenistan to unilaterally establish their rights to control the “rules of the game”. This paper suggests that sustainable solutions will not be reached unless the geopolitical nature of the basin and outside interventions can center on a normative understanding of the regional interests, identities, and commonalities of all the riparian states.

Keywords Geopolitics · Hydropolitics · Transboundary water interactions · Dam development · Harirud · Afghanistan

1 Introduction

Hydropolitical studies¹ have resulted in different ideas and contested beliefs about the relation of politics and water resources among academics and politicians. While some argue for water conflict management through a functionalist institutional approach (e.g. Sadoff and Grey 2002; Alam 2002; De Stefano et al. 2010), a growing group of scholars have

¹ The term “hydropolitics,” introduced by Waterbury (1979), signifies politics affected by water resources. Hydropolitics is the study of the geopolitics and international relations around transboundary waters (Kraak 2012). Hydropolitics, in other terms, refers to the “conflict and negotiation process between sovereign states on water allocation and distribution, particularly in relation to transboundary rivers or aquifers” (Mollinga 2008, cited by Aggestam and Sundell-Eklund 2014: 11).

✉ Mohsen Nagheeby
mohsen.nagheeby@northumbria.ac.uk

¹ Northumbria University, Newcastle upon Tyne, UK

² Disaster Studies Group, University of Wageningen, Wageningen, The Netherlands

sought to underscore and theorize the complex political nature of water development (e.g. Zeitoun and Warner 2006; Castro 2007; Aggestam and Sundell-Eklund 2014; Krampe 2017). Over the last few decades, growing attention to environmental issues within the political agenda has led to an increased “discursive construction of [these] particular issues as security threat[s]” (Hussein and Grandi 2017: 797). The move to “securitization,” which demands “extraordinary measures in order to deal with that specific challenge,” ultimately results in “depoliticization” since it represents “a failure to deal with issues of normal politics” (Hussein and Grandi 2017: 797). Depoliticization is “silencing alternative voices and visions, and prioritizing the ‘neutrality’ of technical and managerial ‘objective’ strategies” (ibid.). Depoliticization has resulted in a partial interpretation of the complexity of water development politics. A deeper and more critical theoretical understanding of the linkages between water development and its underlying politics is needed. Expanding the focus of this research by closely examining the *geopolitical* history of water provides a more comprehensive approach as it illustrates the political dimensions and the complex interactions of transboundary waters.

This article highlights the geopolitical overlay of the hydropolitics of the Harirud River Basin (HRB), which is shared by Afghanistan, Iran and Turkmenistan. The HRB is divided by political borders, with asymmetric and interdependent socio-economic relations between the riparian states, and is associated with non-integrated management and non-cooperation. The unilateral utilization of the HRB by these three riparian states (upstream Afghanistan and downstream Iran and Turkmenistan), without entirely respecting all water rights in the basin, is a cause for concern for the future of the whole region. The principles of “Equitable and Reasonable Utilization” along with “No Harm Obligation” (the main concepts indicated in Articles 5 and 7 of the 1997 UN Watercourses Convention), and of Integrated Water Resources Management (IWRM), are ignored. In this regard, individual dam development as a hydraulic measure to control water resources is becoming a critical issue faced by the riparian states in question.

Taking a wider perspective extending beyond water issues, Afghanistan is historically a classic example of development and conflict within international and regional geopolitical competitions (Cullather 2002a). Afghanistan has been a buffer state for superpowers with security interests in the region during both colonial and post-colonial periods. The geopolitical competition for security in Afghanistan has been referred to as the Great Game, or the strategic rivalry and confrontation between superpowers, namely the British and Russian Empires and later the US versus the Soviet Union, as well as regional powers like India and Pakistan. As will be discussed later, these superpowers have pursued different strategies for ruling Afghanistan and controlling territory for their own security and geopolitical interests. One strategy has been to secure control of water resources. Thus, water (development) has profoundly shaped geopolitical dynamics in Afghanistan.

Many scholars have studied the hydropolitics of Central Asia and particularly the Aral Sea basin (see Smith 1995; O’Hara 2000; Wegerich 2008; Dukhovny and Sokolov 2003, 2011). However, there are very few specific studies of the hydropolitics of the HRB as a part of the Aral Sea basin (Sinaee 2012; Thomas and Warner 2015; Kamran et al. 2017). Partly because of this dearth of studies, the complexity of the basin’s geopolitical dynamics has not been properly addressed. For example, Thomas and Warner (2015) explored the nexus between power and transboundary water interactions in the HRB. Yet, their analysis deemphasized political influences on this volatile region; the complexity of geopolitical interactions requires more nuanced investigations. For instance, the authors point out that Iran may stand to benefit from causing delays to and driving up the cost of the project (Thomas and Warner 2015: 13). However, this argument could be questioned in light of

the region's geopolitical complexities. The geopolitical nature of the basin and the role of external actors arguably make stability in Afghanistan a high priority for Iran and Turkmenistan. Thus, despite the development of a dam in Afghanistan potentially being a major concern for Iran and Turkmenistan, the stabilization of Afghanistan through its development could, in fact, provide a compelling reason for Iran and Turkmenistan to support dam development. This motive could be further justified by the high socio-economic interdependency of these countries.

Given the region's water scarcity and geopolitical importance, we propose that a better understanding of the situation can be reached by considering Afghanistan, Iran and Turkmenistan as a "hydropolitical security complex". Schulz (1995) introduced this notion as "a set of states that are geographically part owners and technical users of a water body, and that consider that water body to be a major national security issue". The (neorealist) concept of a hydropolitical security complex was taken up by, among others, Tony Turton, for hydro politics in the Southern Africa region. Applying this concept to the Euphrates-Tigris Basin, Warner (2008: 277) highlighted the overlay of global political games and argued that "a change in the hegemonic relationships with respect to the global governance of water has ripple effects in the region". The present paper continues this line of thought. Through an analysis of the geopolitical interests of external actors (mainly outside the basin) in the context of the Great Game and the framework of critical hydro politics, this paper aims to address the following questions, which are of growing interest among scholars and researchers of water politics: How can dam development influence the geopolitics of the region in the post-conflict period? Are any other out-of-basin interests (re)shaping the hydropolitical relationships in the riparian states?

To better understand the political perspectives, interests, policies and strategies of the key parties concerned with the basin, discourse analysis can help explain the nature of transboundary water interactions and power struggles among the riparian states. A comparative approach is used to analyze several media sources (e.g. TV programs, online news websites and newspapers) alongside reports and headlines in press releases from international, Afghan (only in Dari-Farsi and English) and Iranian (in Farsi and English) sources during the last decade. We closely examined the political affiliation of these sources to critically evaluate their discourses and narratives. This examination was achieved by analyzing the patterns of argumentation, searching for the dominant agenda, and studying words and phrases in political linguistic terms in order to find a paradigm that shapes the basin actors' and key policy makers' positions. Data from 2004, when the Doosti Dam was opened, to 2017, was collected and analyzed, with a particular focus on years when notable events occurred, such as in 2016 when the Salma Dam was opened.

This article concludes by arguing that the control and capture of water resources in the HRB do not serve economic development interests alone but also more broadly represent the geopolitical interests of the concerned parties, particularly those of the out-of-basin actors. Water is highly politicized under the conditions of the Great Game. Therefore, external actors' strategies involve principally controlling water resources for their own interests and ignoring the basin's integrated approach for serving all riparian states' water demand. These strategies ultimately threaten the process of peace-building in Afghanistan and the creation of a mutual understanding between the riparian states along the basin. Taking into consideration that a dam, in and of itself, can provide its owner with the political and legal power to strengthen its position in future negotiations over water allocation with downstream-ers, this study, nevertheless, notes that dams are also seen by the Afghan government as a sign of nation-building and means of staying in power. In the absence of trilateral negotiations and agreements, and in light of the nature of the Great Game,

Afghanistan, on the one hand, and Iran and Turkmenistan, on the other, have sought to unilaterally establish their rights to access water and to control the rules of the game by changing the existing asymmetric power relations.

This article comprises five sections. Section 2 conceptualizes water politics and development. The article then sketches the hydrological and socio-economic context of the HRB and its main characteristics (Sect. 3) before explaining the institutional history of transboundary water interactions in the basin (Sect. 3.1). Through a critical hydropolitical analysis, the penultimate section considers the geopolitics of water in Afghanistan (Sect. 4). Finally, Sect. 5 addresses how parties' interpretations of water politics influence the hydropolitical relationships of the HRB and how external powers' strategies thwart both the peace-building process in Afghanistan and the creation of a mutual understanding in the basin.

2 Theorizing the geopolitics of water: transboundary water interaction through functionalism or realism?

Since the 1990s, a controversial debate has arisen in the realm of hydropolitics concerning the conflict–cooperation dichotomy of transboundary waters, with two main groups that focus on either war or peace (Warner 2012). The first group, whose ideas mainly derive from neo-Malthusian and neorealist theories, believes that the scarcity of water in unstable political conditions leads to armed conflict, or “water wars” (Cooley 1984; Westing 1986; Starr 1991; Gleick 1994; Remans 1995; De Villiers 2000; PressTV, 11 June 2017; Felix and May 2018). The second group, being more optimistic in their outlook, introduced the idea of “water for peace”. After having contemplated historical conflicts and theoretical approaches, they believe that water and its specific characteristics hold the potential for regional and international cooperation of shared water resources (Wolf 1998; Sadoff and Grey 2002, 2005; Phillips et al. 2006; Wolf 2007; Gerlak et al. 2009). Wolf (1998: 261), in his pioneering historical study, asserted that “war over water is neither strategically rational, hydrographically effective nor economically viable”. Since then, many studies have sought to show how technological and diplomatic efforts in areas concerning the low politics of water scarcity could lead to cooperation rather than conflict (Sadoff and Grey 2002; Alam 2002; Dinar 2006; De Stefano et al. 2010). Dolatyar and Gray (2000) concluded that mutual interests have resulted in increased instances of cooperation with regard to water scarcity. These discourses on water cooperation and peace-building originated from functionalist theory and arose in parallel with the liberal peace-building paradigm, which has blossomed since the end of the Cold War (Aggestam and Sundell-Eklund 2014). The functionalist theory underlines the possibility of fostering cooperation and trust-building, beginning in areas of low politics and spreading to matters of high politics. Further stressed is the importance of depoliticizing the disputed issues and working, first and foremost, toward cooperation on technical issues and the sharing of scientific knowledge (Jägerskog 2009). Cooperation on depoliticized issues as the independent variable could positively influence dependent variables like trust, certainty and confidence among the hostile actors (Jägerskog 2009; Krampe 2017). Likewise, recent studies have focused on the intra-state level and have illustrated the significance of the impacts of local discourses and identities on transboundary water interactions (Krampe 2017).

It has been contended, however, that focusing on water war or water peace lacks nuance and a critical understanding of hydropolitical dynamics (Warner 2012; Warner et al. 2017). An alternative conceptual framework on hydro-hegemony and counter-hegemony,

in which power is essential to influence states' behavior, was introduced in the 2000s to critically unpack the hydropolitical context of transboundary water interaction. This paper is grounded on this line of theory, as will be explained in the next section. Moreover, it is necessary to understand the geopolitical challenges, tensions, beliefs and historical interpretations of the different parties involved, which have a reciprocal relationship with transboundary water interactions, in order to develop a theoretical understanding of the significance of hydropolitics in the basin.

2.1 Water geopolitics and transboundary power relations

Some academics argue that politics not only influence water-related processes but also that any activity related to water resources influences politics (Savenije and Van der Zaag 2000; Swyngedouw 2009). Swyngedouw (1999, 2009) argues that any social or physical environmental activity, such as dam construction, may benefit some people but negatively affects social and physical conditions for others. Thus, socio-environmental change leads to a degree of political instability in a society (Swyngedouw 2009). Swyngedouw remarks that “the mobilization of water (through dams, canals, pipes, and the like) for different uses in different places is a conflict-ridden process... and shows how social power is distributed in a given society” (2009: 57). In other words, any hydro-social configuration results from hegemonic political, social and cultural conditions (Swyngedouw 2009). Thus, political power is recognized by some scholars as a major influence on the outcome of transboundary water relations among riparian states (Waterbury 1979; Allan and Allan 2002; Zeitoun and Warner 2006; Cascão 2009); as Swyngedouw (2009: 58) puts it, “when two equal rights meet, power decides”.

In contrast to the dilemma of conflict–cooperation discourses, Mirumachi and Allan (2007) have argued that conflict and cooperation are co-existent. These authors emphasize that “considering conflict and cooperation as opposing concepts misleadingly simplifies the complexity of interactions” (2007: 4). Considering conflict and cooperation separately on a single axis (as in Yoffe et al. 2003) leads one to overlook significant political aspects. For instance, in the case of Palestine and Israel, or Ethiopia and Egypt, both riparians cooperate on data-sharing, bound by a treaty, while political tensions, which are somehow excluded from discussions, arise from transboundary water interactions (Zeitoun and Mirumachi 2008; Cascão 2009). Accordingly, Mirumachi and Allan (2007) recognize the co-existence of conflict and cooperation through a political process and introduce the concept of transboundary water interactions, which they define as the co-existence of conflict and cooperation within a political process, whereby power is the main determinant factor (Zeitoun and Mirumachi 2008). On this basis, they developed the framework of hydro-hegemony to analyze power relations among the riparian states and the impact of these relations on the control of water resources. Among many different definitions of power, Zeitoun and Warner (2006) see power as multi-dimensional. Power not only relates to the visible, material capabilities of actors, such as their economic or military capacity, but also concerns the less visible, non-material capabilities of actors, including their ability to influence ideas, discourses, knowledge and institutions. Thus, power is understood as “emerging from social [and political] processes rather than taken for granted in the form of accumulated material capabilities” (Cox 1981: 105).

This power is not evenly distributed among the states and actors, which creates asymmetric power relations. The asymmetric distribution of power influences water interactions and, in particular, water allocation. Asymmetrical power greatly contributes to shaping the

water flow regime among all riparian states and identifying who gets water and how much (Allan and Allan 2002; Zeitoun and Warner 2006). Therefore, each riparian state struggles to gain power and, accordingly, the capability to control water resources for their own benefit. In one sense, riparian states seek to take measures and strategies to control water resources. Among these various strategies² is the resource capture strategy, which, in this case study, is used to create “facts on the ground” and refers to the technical and physical control of water resources through the construction of hydraulic infrastructures (e.g. dams and irrigation networks). Since dams themselves significantly contribute to controlling and governing a river, the geopolitics of transboundary rivers are affected by dam development. Accordingly, for transboundary water resources, riparians (or, in this study, external actors) also use dams as a way of controlling waters and, in turn, controlling hydropolitical relationships (Zeitoun and Warner 2006). Thus, dam development directly or indirectly influences the “transboundary water interactions” among riparian states and, as we argue here, beyond this, affects other interests in the wider geopolitical sphere.

Over the last decade, substantial interdisciplinary studies have been conducted in the realm of critical hydropolitics to explore political interactions between riparian states and to examine the role of power, discourses and strategies in shaping transboundary water interactions and states’ behavior in different river basins (e.g. Hussein 2016; Menga 2016; Hussein 2017; Warner et al. 2017; Zeitoun et al. 2017; Hanna and Allouche 2018).

Authors, such as those cited above, have criticized functionalism for underestimating the role of politics within transboundary water interactions. This paper delves into the political history of water development and negotiations and argues that the increasingly politicized nature of water in Afghanistan has resulted from the (geo)political nature of the region and has been partially shaped by external powers’ policies.

2.2 Politics of dam development

In January 1949, President Harry S. Truman “hit the jackpot of the world’s political emotions” when he proposed a “bold new program... for the improvement... of under-development areas” (Cullather 2002b: 513). Shifting from the colonial era to the post-colonial era, “development” and “modernization,” as new concepts, became the heart of the new policies of global powers in “new independent states” (Ibid.). This thinking persuaded the leaders of these newly independent countries to “modernize” their governmental policies. Development was not simply the best but rather the almost unavoidable option; “there is only one-way traffic in time,” as Jawaharlal Nehru of India observed (Ibid.: 513). Such development and modernity often manifested in dam projects, land reforms and planned cities (Ibid.). In this regard, a large-scale water project like the development of a dam was recognized “as a child of colonialism,” or a way to reshape and reform the colonized states to control space, water and people and centralize the power (Cullather 2002b; Molle et al. 2009).

Controlling a river with dams is analogous to governing a group of people who have an interest in the water resources of that river (Kraak 2012). This potential of ruling people has resulted in competition among the different stakeholders of a river to achieve the

² For further information on such strategies, see Zeitoun and Warner (2006).

“hydraulic mission,”³ with which they can rule the other actors. The hydraulic mission, with the objective of ruling society, has become the rationale for dam development despite not necessarily being economical or beneficial to a particular society (Molle et al. 2009; Kraak 2012). Indeed, dam development has often been used for political purposes.

In sum, hydraulic infrastructure is recognized as the ideological rationale for a form of economic development that affects political power relations in society (Swyngedouw 1999; Molle et al. 2009). Described by Molle et al. (2009) as “flows of water, flows of power,” it has also been argued that dams are constructed due to (geo)politics rather than cost–benefit analyses (Swyngedouw 1999; Molle et al. 2009). For instance, Menga (2017) examines how the Ethiopian leadership constructed the Grand Ethiopian Renaissance Dam based on its geopolitical perceptions (and we would add political opportunity as well, i.e. while the Egyptians were busy staging a revolution) of the Nile River. In this regard, studying the link between control over water resources, and in particular dam constructions, and its impact on the geopolitical nature of the transboundary river basin is critical.

With respect to this paper, in February 2011, the U.S. Senate Foreign Relations Committee published a report warning of the growing number of disputes over transboundary waters between Afghanistan and its neighboring countries due to Afghan dam development plans (CFC 2011). In 2008, the Norwegian Institute of International Affairs similarly noted that the construction water infrastructure in Afghanistan on transboundary waters, in combination with the associated geopolitical rivalries, has been an important driver of disputes and insecurity in the region (NUPI 2008). Acknowledging the importance of understanding the reasons behind these sentiments, this article aims to illustrate the geopolitical overlays of the basin’s transboundary water interactions and development.

3 The Harirud River Basin: asymmetry, complexity, and interdependency in post-conflict water development

I come from Afghanistan, a post-conflict country ... As soon as we bring total peace to Afghanistan, our biggest problem would be water, because the water is scarce in our region. We are [an] upstream country...We have to generate job[s]; we have to put [in place] development programs; definitely this will affect the water in the area, in the volume of the water which will be flowing to the neighboring countries.

So said H.E. Enayatullah Nabel⁴ and, generally speaking, this quote epitomizes the context of this study.

The 1124 km-long Harirud River, with a total drainage area of approximately 112,000 km², originates in Afghanistan (250 km west of Kabul). Around 70 km east of Herat, the river’s major tributary, known as the Kabgan River, joins the Harirud River. Then, continuing west through the city of Herat, the river turns northwards to reach Iran and forms approximately 160 km of the political border between Afghanistan and Iran (Favre and Kamal 2004). Later, the river provides around 170 km of the political border

³ The hydraulic mission can be summarized as “the strong conviction that every drop of water flowing to the ocean is a waste and that the state should develop hydraulic infrastructure to capture as much water as possible for human uses” and is embodied in a central government agency consisting of hydraulic engineers (Wester et al. 2009).

⁴ Ambassador of Afghanistan to the Netherlands at the international conference of water security and peace, The Hague, November 15, 2013.

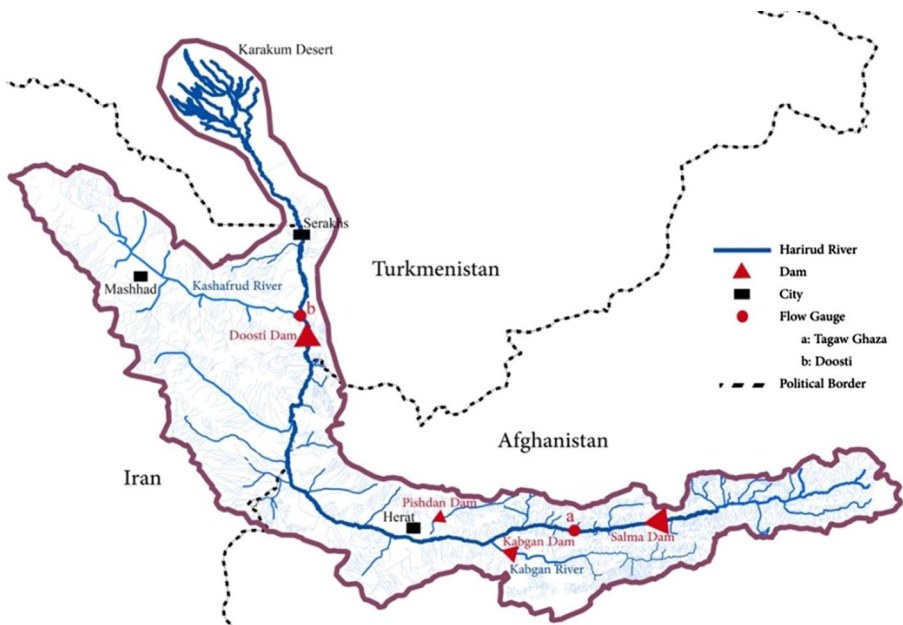


Fig. 1 Geographical map of the Harirud River Basin with the location of the dam

between Iran and Turkmenistan,⁵ and finally it irrigates the Karakum desert in Turkmenistan (King and Sturtewagen 2010; FAO 2013). There are also some other smaller tributaries on the HRB, like the rivers Karukh and Kashafrud in Afghanistan and Iran, respectively. The total annual water availability of the Harirud River is 1600 million cubic meters (MCM), of which 1070 MCM reaches the Iranian border (FAO 2009). Since most of the water resources of the HRB originate in Afghanistan and the majority is used downstream, there is an asymmetric water resources balance in the basin. Figure 1 illustrates the geographical situation of the HRB.

Iran and Turkmenistan have been on a hydraulic mission since 2004, without Afghanistan's involvement, by building several dams and canals and expanding irrigation areas. The Doosti Dam, with a capacity of 1250 MCM, allows Iran and Turkmenistan to supply their water demands, including irrigation and drinking water (UNECE 2011). Growing water demand in Mashhad has led Iran to unilaterally construct a pipeline of more than 150 km in order to transfer water from the Harirud River (at Doosti Dam), which supplies over 50% of the city's total domestic water to Mashhad (ibid.). The population of Afghanistan is also dependent on this shared water resource. Afghanistan has only recently begun its hydraulic mission with the construction of the Salma Dam, which has a storage capacity of 633 MCM and which officially opened in June 2016 (BBC, June 4 2016). In addition, Afghanistan plans to construct two other dams (i.e. the Kabgan Dam and Pishdan Dam on the Kabgan tributary and the Karukh tributary, respectively). Upon completion of these dams, the total storage capacity in Afghanistan is expected to

⁵ This part of the river, which forms the political border between Iran and Turkmenistan, is officially known as the Tejen River.

reach more than 950 MCM (ADB 2005; ANDS 2008). However, the results of a water resource analysis for the HRB revealed the negative impacts of the construction of the Salma Dam on the downstream water flow in Iran and Turkmenistan (Nagheeb 2014; Kamran et al. 2017). The results show that the downstream water discharge is expected to dramatically decline, in the range of 30–80% based on differing scenarios, as a result of the construction of Salma Dam (Nagheeb 2014). In addition, the Salma and Doosti dams, particularly in Turkmenistan, are anticipated to negatively impact downstream ecological conditions and foster resource over-utilization in both the upstream and downstream regions (ibid.). Along similar lines, Thomas and Warner (2015) and Peterson (2013) predicted that the distribution of water for downstream-ers could be considerably diminished as a consequence of the Salma Dam, the latter indicating that the Salma Dam would cut the flow of downstream waters by 73%.

Shared by the three riparian states of Afghanistan, Iran and Turkmenistan, the Harirud River reminds us of the rich history and culture of the Greater Khorasan. Looking at the history and cultural background of the basin, it narrates the story of the people living in cities like Balkh and Herat (now in Afghanistan), Tus, Nishapur and Serakhs (now in Iran), and Merv and Abiward (now in Turkmenistan). In this way, the Harirud River is not only a flow of water but also a flow of the histories, cultures, languages and religions of the people currently divided by borders. The Harirud River has been associated with the ancient Silk Road, a historical network of trade and cultural transmission that was central to the cultural interactions of the West and East (Elisseff 2000). There is significant potential for Iran's sphere of political influence to have an impact on Afghanistan. For instance, historically, there has been a high socio-economic interdependency between Afghanistan and Iran; a number of bilateral agreements related to economic and security issues have been signed by these countries. In addition, Iran is among Afghanistan's top five trading partners, and Iran hosts over two million Afghan refugees (CFC 2013). As noted by Milani (2006), Iran was one of the leading contributors of the 2002 Afghanistan Recovery and Reconstruction Conference in Tokyo, committing US\$560 million toward Afghanistan's reconstruction (around 12% of the total reconstruction assistance). In 2006, Iran subsequently offered a further US\$100 million to support Afghanistan (BBC Persian, January 31 2006). Most of these Iranian investments involve infrastructural projects, such as the construction of roads, railroads and bridges, as well as education, power generation and telecommunications projects, and tax-free trade routes (Milani 2006; CFC 2013). Further, these investments are predominantly made in the Herat region, which is currently the most stable and prosperous region in Afghanistan (Milani 2006); the city of Herat is expected to blossom (EastWest 2011). There is also a considerable amount of trade between Iran and Afghanistan. It is estimated that between "100 to 400 trucks" and "at least 500 cars" cross Iranian-Afghan borders daily (ibid.). These figures show a high interdependency between Iran and Afghanistan, as reflected in the words of Iranian President Muhammad Khatami, "Today, the Afghan nation has a government that is based on its own will... the stability and security of Afghanistan is the same as our own security and stability" (Radio Afghanistan, August 13 2002).

Afghanistan and Turkmenistan have a similar meaningful socio-economic interdependence (Badykova 2005). In addition to its historical and cultural commonalities, Turkmenistan exports electricity to Afghanistan, which supplies a significant amount of Herat's electricity demand (Badykova 2005). Among many economic projects taking place between Afghanistan and Turkmenistan is a gas transfer project known as the Turkmenistan–Afghanistan–Pakistan–India Pipeline (TAPI), which is extremely beneficial to both countries (Rejepova 2013).

The Harirud River would have historically been a natural geographical mediator, uniting the various and divided cultures with many commonalities. By looking at the historical, political and economic interactions and differences among the HRB riparian states, the basin can be characterized by asymmetric and interdependent socio-economic factors within a complex geopolitical environment. The normative common interests, identities and commonalities among the riparian states offer significant potential to overcome geopolitical challenges.

3.1 Institutional history of transboundary water interaction in the basin

Regarding the formal existing legal arrangements among the riparian states for utilization of the HRB's water, it should be noted that there is no formal agreement in which all states are involved; there is only an agreement between Iran and Turkmenistan, not Afghanistan. The first formal agreement concerning the allocation of water resources along the HRB was made between Iran and Russia in 1921 (i.e. Agreement on the regimes of Border Rivers, Iran-The Soviet Union 1921) after Afghanistan gained independence in 1919. This treaty led to the signing of another agreement between Iran and Russia in 1926 for further consideration of the river's water allocation (i.e. Agreement on the regimes of Border Rivers, Iran-The Soviet Union 1926). In addition to water allocation agreements, the construction of a dam on the Harirud River and later a 50–50 water allocation were agreed upon in the third article. This was the first time that Afghanistan was not involved in negotiations on the construction of a dam along the downstream stretch of the Harirud River. The construction of a common dam (agreed upon in 1926) was practically negotiated in March 1958 and September 1974 between Iran and Russia, which resulted in the initiation of certain pilot studies on the dam (Sinaee 2012).

While Iran and Russia were negotiating the construction of a common downstream dam in 1974, it was revealed that Afghanistan had asked the FAO to analyze the new Salma Dam project that they were planning (MOE 2013; Wadsam News (hereinafter WN), September 7 2013). Indian and British experts were involved in this project, which had the support of the World Bank (ADB 2005; ANDS 2008; MOE 2013). The downstream countries, particularly Iran, became severely concerned about the potential consequences of the construction of this dam and the outside players involved therein. Meanwhile, despite growing tensions and concerns in the HRB, Iran and the Soviet Union emphasized the necessity for trilateral cooperation between the three riparian states in 1975, but Afghanistan did not answer to this political signal (MOE 2013); 4 years later, the Soviet Army invaded Afghanistan in support of its Communist government. The contested efforts to construct a dam, and the following tensions between the HRB riparian states, were halted by the Soviet Union and Iraq's invasions of, respectively, Afghanistan and Iran in 1979 and 1980 (Sinaee 2012).

The first negotiation on the construction of a common dam on the Harirud River, held in 1926 between Iran and the Soviet Union, was resumed in 1992 between Iran and the newly formed republic of Turkmenistan following the collapse of the Soviet Union in 1991 (MOE 2013; Sinaee 2012). With respect to the 1921 and 1926 treaties, an agreement was reached to initiate a joint study on the construction of a common dam in 1992 and to equally share the water resources of the Doosti Dam reservoir (i.e. Agreement on the cooperation for the construction and operation of Doosti Dam, Iran-Turkmenistan 1999). The construction of the Doosti Dam commenced in 2000 (Najafi and Vatanfada 2013; MOE 2013). Afghanistan consequently made complaints against Iran and Turkmenistan (EastWest 2011). It

seems that one of the reasons for Afghanistan's concerns over the Doosti Dam was related to historical and existing water rights, which would make it possible for water resources to be claimed by Iran and Turkmenistan based on certain doctrines in the context of international water law. The two downstream countries officially opened the dam in 2004, which was 1 year earlier than planned (Sinaee 2012). This earlier opening supports the argument about how Iran and Turkmenistan intended to create facts on the ground prior to Afghanistan's involvement in order to claim a better position in (future) negotiations. From the Afghan perspective, although the construction of the Salma Dam had been planned since 1976 by Afghanistan with Indian and British support, the conflict and civil wars in Afghanistan did not allow the Afghans to construct the dam. After September 11, 2001, and the start of President Hamid Karzai's time in office, the US\$200 million Salma Dam project (N.B. its budget ultimately increased to US\$300 million) was initiated by the Indian government (Pant 2010; WN, September 7 2013).⁶ In addition to the Salma Dam, Afghanistan is developing several new irrigation schemes along the Harirud River with the support of the Asian Development Bank (ADB)⁷ (ADB 2005; CFC 2013). Thomas and Warner (2015) note that Afghanistan seeks to complete hydraulic projects on the HRB, such as the Salma Dam, in the face of previously constructed infrastructures by downstream countries to (re-) build a better position for probable future negotiations.

Meanwhile, besides the political signal sent in 1975 from Iran and Russia to the Afghan government proposing a negotiation, both Iran and Turkmenistan twice sent official letters (once in 2006 and another in 2010) to President Karzai with a message stressing the need for trilateral cooperation in the management of the HRB's water resources; these letters received no reply. As Mr. Mahmoud Saikal⁸ mentioned on one Afghan TV program, "We (Afghanistan) received a letter from Iran and Turkmenistan in 2006, asking for cooperation on the Harirud River, but we (Afghanistan) responded [...] that we do not want to talk about our waters (that was not a good decision, in my opinion)" (Tolo News (TN), August 26 2013). More recently, Mr. Fazl Ahmad Zakeri commented, "Yes, the Iranians are asking for negotiations. Always they are asking for negotiations [because they will get] much less water"⁹ (Peterson 2013).

The message that there is "no need for negotiation concerning the HRB" from the Afghan side continued up until recently, prompting Iranian President Hassan Rouhani to express his concern that "Iran could not be silent about the environment of the region and negative impacts emerging from dam development in Afghanistan" (Hamshahri online news, July 4 2017). Meanwhile, there was a round of negotiations between Iran and Afghanistan (but not Turkmenistan), regarding a Comprehensive Strategic Partnership on different issues, importantly including security and water; these negotiation were held in June and October 2017 in Tehran and Kabul, respectively (ibid.). However, commentators have not yet discerned any positive signals from media reports indicating that meaningful progress has been made in the HRB water negotiations.

⁶ The Afghan cabinet renamed the Salma Dam the Afghan-India Friendship Dam (TN, August 27 2015a).

⁷ ADB supports Afghanistan with a scheme entitled the "Western Basins Water Resource Management and Irrigated Agriculture Development Project."

⁸ Permanent Representative of the Islamic Republic of Afghanistan to the United Nations.

⁹ The Ministry of Energy and Water's Former Acting Director for the Harirud-Murghab River Basin in Herat.

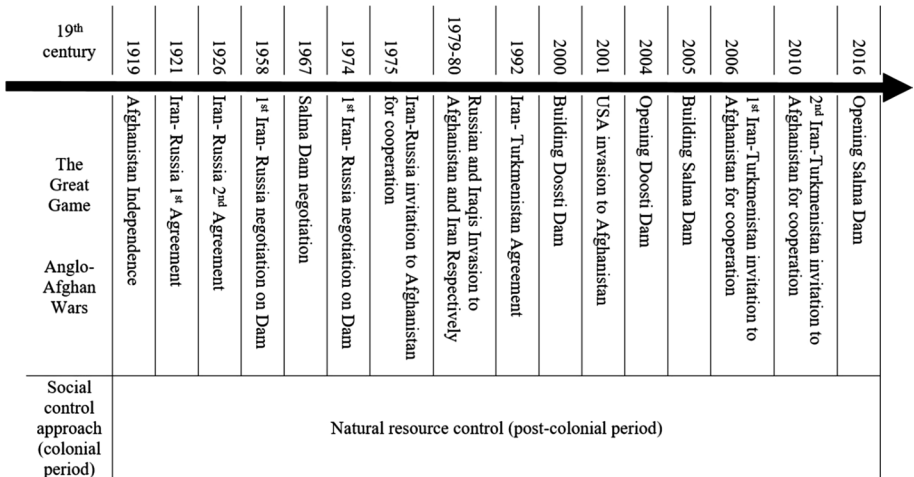


Fig. 2 Transboundary water interactions within the Great Game in the HRB

When considering the riparians' behavior and discourses with respect to transboundary water interactions, it seems that Afghanistan's leadership believes they lost development opportunities during the Soviet occupation and civil war. They accordingly consider this war-imposed, asymmetric hydraulic and socio-economic situation as an unbalanced power condition in comparison with Iran and Turkmenistan and are afraid of its negative impacts on the negotiation process. In one sense, the Afghan leadership sees little choice but to focus on realist policies during the post-conflict period, with the understanding that these could at least compensate for lost opportunities and delays while helping them to strengthen their negotiating position. Moreover, some Afghans appear to reason that negotiations may delay their current development projects; thus, they prefer to postpone the negotiations until at least after the completion of their own water control projects. This opinion is shared by Afghan official Mr. Ziaee,¹⁰ who remarked, "Maybe [Iran and Turkmenistan] need to talk with us, but we don't see any need to talk with them, to negotiate about water. *Right now, no*" (Peterson 2013). Iran and Turkmenistan, however, have assumed a functionalist stance, believing that depoliticizing water issues can meet their interests in the face of complex geopolitical variables. Thus, although they have unilaterally developed infrastructure, Iran and Turkmenistan see urgent cooperation with Afghanistan firstly as a way to diminish the political sensitivity of the basin and secondly to maintain the status quo. In the next section, we will consider how the geopolitical nature of the basin influences the interpretation and behavior of the HRB riparian states.

Figure 2 shows the main events of transboundary water interactions in the HRB.

¹⁰ The former deputy minister of Energy and Water in Kabul.

4 Geopolitics underlying water development in Afghanistan: the shadow of the Great Game over water

Afghanistan is one of the most geopolitically important areas in the world (Hopkirk 1994; Smith 1996; Tanner and Todd 2002; Kleveman 2003). It has been invaded by almost every empire and superpower on earth, from Alexander the Great's Greeks to the British during the Anglo-Afghan Wars of the nineteenth and twentieth centuries and the Russian Empires (1979–1989) to, more recently, the United States of America in 2001 (Kleveman 2003; Meyer and Brysac 2009; Stewart 2012).

In the nineteenth century, Afghanistan was sandwiched between two empires (Russia and Britain), who each claimed to be a friend (Kleveman 2003; Stewart 2012); this situation resulted in the Great Game, which is a term referring to the strategic rivalry and conflict between the Russian and British empires in the nineteenth century as they sought geopolitical mastery of Afghanistan (Smith 1996; Kleveman 2003; Hopkirk 1994). Intending to make Afghanistan a buffer state to serve their own security interests, each of the empires pursued control of Afghanistan via territorial control, by dominating the natives and building a tribal belt between them (Cullather 2002a).

During the twentieth century, the Great Game was effectively ongoing by way of the competition between various Western powers, Russia, and China, for further political influence in Central Asia and Afghanistan in particular, giving rise to the New Great Game. The stakes were such that, according to Rudyard Kipling, "It [the Great Game] will end when everyone is dead" (Penzev 2010). Many authors and analysts recognize this new game as a competition to control natural resources (e.g. pipelines, tanker routes, petroleum, water and contracts) rather than the social control sought in the nineteenth century (Smith 1996; Edwards 2003; Meyer and Brysac 2009).

As a result of the recent decades of war and conflict shaped by the twentieth century's New Great Game, Afghanistan came to be known as an "economic Korea," divided between the Soviet Union and the US (Cullather 2002a). Afghanistan again became a buffer state between superpowers. Now, in the name of modernization, these superpowers have applied various economic approaches, ranging from communist to capitalist in nature, to protect their own security interests (Cullather 2002a). This has resulted in a competition for development; as Arthur Schlesinger contended, "Dams were the American alternatives to Communist land reform" (Cullather 2002a, b). In the 1950s and 1960s, the US made Afghanistan a showcase of modernization and development, which was part of a larger nation-building¹¹ project requiring the reconstruction of the post-colonial world (Cullather 2002a, b). According to Cullather (2002a), the British and Russian approach to controlling Afghanistan in the nineteenth century focused on ethnographic borders. The US and Soviet Union, contrastingly, emphasized the importance of hydrological borders in this new game that is, the drive toward controlling water as a way of redefining political conflicts in Afghanistan and thereby ruling the population.¹² To this end, the Helmand and

¹¹ The nation-building schemes resulted in contests of development, often over dam projects, land reforms, and planned cities. Thus, leaders of newly independent states like Zahir Shah of Afghanistan and Jawaharlal Nehru of India, insisted on modernization as the only way forward; Nehru asserted, "There is only one-way [development and modernization] traffic in Time" (Cullather 2002b).

¹² "Over the next two decades the United States would propose river authority schemes as solutions to the most intractable international conflicts: Palestine [...] and the Kashmir dispute" (Cullather 2002a: 18).

Arghandab Valley Authority (HAVA)¹³ was regarded by the U.S. government as a means to “create a secure political base [against the US’s rival, the Soviet Union]”. For their part, the Soviet Union constructed the Jalalabad Dam and a canal on the Amu Darya tributaries in Afghanistan (Cullather 2002a).

This competition for development projects attracted other players, including the Chinese and West Germany governments, making Afghanistan the recipient of one of the highest levels of development aid per capita in the world at the time. The *U.S. News and World Report* described a “strange kind of cold war” in Afghanistan that was being “fought with money and technicians, instead of spies and bombs” (Cullather 2002a: 26). The New Great Game was perpetuated by the invasion of the Soviet Union in 1979 to support the Afghan communist government against the Mujahideen, who were backed by the US. Later, following a civil war, a US and European coalition invaded Afghanistan in October 2001 in response to the September 11, 2001 attacks on the US (Tanner and Todd 2002; Edwards 2003).

It has become conventional thinking that resource control is the essential part of the New Great Game’s goal to preserve the superpowers’ current security (Edwards 2003; Meyer and Brysac 2009). The idea of Afghanistan serving as a battlefield for hegemonic rivalry persists, as attested by former Afghan President Hamid Karzai’s belief that the US and Western allies launched the war in Afghanistan for their own interests. “Afghans died in a war that’s not ours,” said Karzai in an interview with the *Washington Post* on March 3 (2014), in which he asserted that the 12-year-long war was “for the US security and for the Western interest”.

The Great Game formed the context of a New World Order that presents Afghanistan as an international issue, and regional countries also became enmeshed in competition over “influence, power, hegemony and profits” (Economist, March 22 2007). Pakistan, India, Iran, Turkey and Saudi Arabia have tried to join the game in an attempt to safeguard themselves and resist the existing superpowers in Afghanistan (Kleveman 2003; Economist, March 22 2007). Competition between India and Pakistan is predominant in Afghanistan (Pant 2010). Emulating the political approach of the superpowers, India and Pakistan are playing out their rivalries in Afghanistan using the same approach of financial investment in development (Pant 2010). In 2002, the Indian government promised US\$750 million in aid to Afghanistan, while Pakistan promised US\$150 million plus the cost of protecting the common border and sheltering two million Afghan refugees in Pakistan (Economist, March 22 2007). In particular, the Salma Dam, the case in this study, has been funded by a US\$150 million grant from the Indian government. The dam had been studied and proposed earlier by British experts (ADB 2005; CFC 2013; WN, September 7 2013). India’s construction of 62 dams in Afghanistan arguably serves to fulfill India’s hegemonic ambitions in Afghanistan against those of Pakistan (Economist, March 22 2007; Pant 2010; WN, September 7 2013).

¹³ The project involved building two major dams on the Helmand River, which not only failed to reach their technical and political objectives (Cullather 2002b) but also had a seriously detrimental impact on the ecological conditions of Lake Hamoun at its delta in the downstream of the basin (Najafi and Vatanfada 2013).

4.1 Water within the Great Game: for development or geopolitical interests?

The story of the Great Game informs our study of how the politics of dam development in the HRB influences transboundary interactions from a geopolitical point of view and questions the role of water in the basin: Is water used for economic development or rather to serve the geopolitical interests of its owners? Examining the institutional history of the negotiations in the HRB, as well as the political history of Afghanistan, these types of questions led us to raise a few key points, as discussed below.

First, could it be that the (super)powers were insincere about the development ambitions they publicly promoted in Afghanistan? Should large dam development merely be considered a child of colonialism? Water development has often been a stratagem to secure geopolitical interests and control regional political powers in this remote area (Cullather 2002a; Molle et al. 2009). In this regard, water projects, and particularly dams, might instead be used by external (super)powers as a tempting proposition in the post-colonial period to strengthen the political influence of the dam's proposers in Afghanistan.

Second, could it be that the development of dams, in particular, that has been offered by rival powers has been seen as the only way for the Afghan government to at least stay in power and stabilize the nation within the midst of the (New) Great Game? This approach has been much more integrated in the new Afghan government's policies since Chief Executive Abdullah Abdullah observed at the High-Level Water Conference in Tajikistan on June 9, 2015,

Water is no longer just a natural resource... but it is increasingly becoming a strategic resource. We want to use our geography, resource capacity, and regional as well as international obligations to maximize usage of water ... We have made significant strides in order to catch up with national development. (TN, June 9 2015b)

Lastly, Afghanistan's absolute water sovereignty stance on controlling water in its territory could increase its geopolitical value and strengthen its negotiating position against, in this case, Iran and Turkmenistan in the HRB. Thus, Afghanistan's goal of developing water infrastructure serves not only economic purposes but is also politically beneficial at the regional and international levels. This is clearly expressed in what the Afghan Minister of Energy and Water, Mr. Ali Ahmad Osmani, said on December 3, 2015, "The message from the completion of Salma dam is not limited to [the fact] that we can generate electricity and irrigates our lands, rather it has a greater message...the Harirud water is under Afghanistan's control now" (Payam Aftab, December 3 2015).

The above-mentioned points illustrate that water resources, and accordingly transboundary water interaction, are reciprocally affected by the geopolitical priorities of the superpowers as well as those of other regional players. Therefore, the construction of the Salma Dam should rather be seen through the political interests of outside players (like India and Pakistan).

In this regard, on the one hand, the Salma Dam is highly important to the new Afghan government for the country's growing water demand, economic development and poverty alleviation. In addition, Salma Dam could improve Afghanistan's current geopolitical position with regard to the downstream countries.

On the other hand, within the (New) Great Game, the downstream countries, particularly Iran, are concerned about the presence of Western troops in Afghanistan¹⁴ and their support of the projects; these countries consider this situation a threat to their territorial integrity, national security and the survival of the state. Thus, even though Iran and Turkmenistan may support dam development in Afghanistan, in general, based on their relatively friendly and interdependent relationships (see, for instance, IRNA News, December 9 2015), these countries have real concerns about the link between outside powers and the dams or water resources being used as geopolitical tools. It could be argued that the current strategies of outside superpowers in Afghanistan erode the socio-economic interdependencies and common social norms and institutions in the basin by hampering the opportunity for cooperation among the riparian states. This line of thought requires further research.

5 Key parties' discourses: positions and interests

Since both Iran and Turkmenistan are highly dependent on external waters (from Afghanistan) for their domestic and agricultural use, Iranian and Turkmen officials see the Harirud River as a matter of human security¹⁵ (Sinaee 2012; Tabnak News, October 28 2013; Shargh Daily News, October 28, 2013). The fear caused by the operation of the Salma Dam and its contribution to diminishing downstream water resources has prompted several extensive debates in the public media, under such titles as “Afghans dry up Mashhad,” “Insecurity Springs From Afghan Dam Projects” and “Why a dam in Afghanistan might set back peace” (Tabnak News, October 28 2013; Radio Liberty, March 22 2013; Peterson 2013). This concern may result from the lack of transparent negotiation between the riparian states and the region's complex political nature that is being influenced by multiple external powers and the instability of Afghanistan. In addition, both Iran and Turkmenistan emphasize their “current and historical right” to the water, citing the existing agreement on water utilization (which resulted in the construction of the Doosti Dam) and clearly underlining the principles of “human security,” “Equitable and Reasonable Utilization” and “No Significant Harm” (Tabnak News, October 28 2013; Shargh Daily News, October 28 2013). It seems that Iran is also afraid that dams will be used as geopolitical tools, thus endangering its national security.

From the Afghan perspective, after a long period of conflict, water resources have become the main strategic resource for development in the country's policies and, in turn, water development is one of the foremost security issues for Afghanistan, particularly due to its vulnerable political atmosphere. The water itself is seen as holy property, equivalent to territorial property. As the former Afghan diplomat, Mahmoud Seighal, has commented, “The water has been a holy subject in its highest level, particularly when we are talking about transboundary waters” (TN, August 26 2013).

¹⁴ Iranian officials have expressed their concerns about the presence of external troops from the Soviet invasion to the present day (Milani 2006).

¹⁵ “Human security” encompasses all essential aspects of human life, including the concept of human development. Human security is centered on the security of the individual, comprising economic, food, health, environmental, personal, community and political security. When access to water is disrupted, people face acute human security risks through poor health and the disruption of livelihoods (Human Development Report 2006).

Afghanistan's main points in discourse are, first, that Afghanistan is the main source of the HRB water resources. Second, Afghanistan has not utilized all of its water resources. Third, since agriculture is the main priority in Afghanistan's national development, they need the water resources to develop their agricultural sectors. Fourth, since Afghanistan is suffering from high political instability, poverty and unemployment, its water resources are supposed to significantly contribute to providing economic prosperity and security.

Emphasizing the right to development and the significant role of the Harirod River in the economic growth of Herat province to alleviate poverty, Afghanistan's official discourse has been built on the "absolute territorial sovereignty" doctrine, whereby the "state is free to dispose, within its territory, of the waters of an international river in any manner it deems fit" (Salman 2007). In this respect, the term "support" has been used to rationalize the presence of several external actors in Afghanistan, all playing roles within the Great Game. Despite the complicated reasons behind the external actors' activities, the main discursive strands derive from the idea that Afghanistan needs to be politically stable, and, therefore, that it needs introduce development policies to stabilize its currently uncertain situation. Resultantly, external actors consider water to be at the heart of development projects (Cullather 2002a, b; Edwards 2003; Meyer and Brysac 2009).

However, the motives of these external actors remain doubtful, as their support of water development could be one of their strategies to politically influence Afghanistan for their own geopolitical goals (Economist, March 22 2007). For instance, the 2017 U.S. Global Water Strategy focuses on water as the core of U.S. foreign policy agenda in Afghanistan, to the end of protecting "US national interests" (U.S. Government Global Water Strategy 2017). Considering the complex nature of the (New) Great Game, it could also be argued that outside-basin powers secure their own interests with "beautiful" discourses, under which they gather support for development and stability. This kind of strategic foreign policy (which gives preference to protecting foreign interests) destroys constructive cooperation with regard to transboundary waters (Cascão et al. 2018) and, indeed, damages the socio-economic, multi-level, interdependent norms of the riparian states. Thus, we suggest that this kind of water securitization for specific interests in Afghanistan, which is associated with the mostly destructive role of outside-basin powers and is largely influenced by the nature of the Great Game, must be changed in order to promote the peace-building process in Afghanistan.

6 Conclusion

Various narratives have attempted to explain the nature of hydro political relationships, which Warner (2012: 173) describes as shedding "different lights on the same phenomenon". From this point of view, we reviewed the general debates around the dichotomy of the realist approach and functionalism within water resources management. We then presented the nexus of geopolitics and dam development. This study avoids the limitations of depoliticization and securitization. Within a critical hydro political analysis, this paper has shown how historical issues and the politics of the past, when intermixed with the geopolitical complex of the Great Game, could influence the transboundary water interactions and hydro political dynamics of an international river basin. This confirms that policies focusing solely on a functionalist approach, even if appropriate for peace-building, could not be satisfactorily applied as the conditions for using such an approach in the HRB are not yet fully in place.

Recognizing the shift in the external powers' strategies for ruling Afghanistan, from controlling tribes to controlling water resources, this study explored the evolving patterns of the hydropolitical dynamics of HRB. This paper found that, first, the realist view of the Afghan governments emerged from a lengthy geopolitical history of war, imposed by the operations of the Great Game, and sustained oppression. Second, within the Great Game, the behavior and political views of the external superpowers concerning water development in Afghanistan have highly politicized water in-line with their own geopolitical interests and have negatively effaced the rooted interdependent norms of the HRB riparian states. Therefore, grounded on a normative understanding of common interests, the nature of the Great Game will need to be changed and outside interventions will need to respect all riparian states' rights to water. We suggest that the basin has a strong capacity to create regional ties between the riparian states and to introduce the idea of benefit-sharing, which are founded on interdependent socio-economic and cultural commonalities. This proposal, of course, needs further investigation.

In the quest to (re)conceptualize water development in the basin, this paper found that the control and capture of water resources is exercised not only for economic development in the HRB but also for domestic and international political reasons in light of the geopolitical circumstances. In fact, this study explained how water and water infrastructure have been a geopolitical tool for negotiations in addition to its socio-economic value in the basin. In the absence of a trilateral agreement, Afghanistan and Iran-Turkmenistan have sought to unilaterally establish their rights and to control the rules of the game by changing the existing asymmetric power relations.

Iran and Turkmenistan are struggling to jointly exercise their control over the Harirud River and maintain the status quo in their favor through functionalist policies that seek to diminish politicized water issues in the basin, while they have also unilaterally developed a hydraulic mission. In contrast, Afghanistan, with its advantage of geographical location along with the support of foreign powers, is planning to resist the current status quo, enhancing its relational power by unilaterally controlling the headwaters. However, it seems that the assertions made by downstream countries about upstream dam development are, in fact, more rooted in their concerns about the complex geopolitical conditions in Afghanistan. If dam development in Afghanistan could bring stability, which is a regional common good, they are likely to support dam development as it would help sustain their interdependent relationships. Nevertheless, the existing nature of the Great Game does not allow the parties to reach common ground. A better balance seems necessary to bring the feuding parties to the negotiation table.

This study proposes avenues for the further examination of the multi-layered political nature of the Harirud River and the public narratives and discourses that are essential to regional peace-building mechanisms and mutual water cooperation in the basin. While we examined the actors' discourses, further research should also explore how outside-basin powers create narratives about transboundary water interactions in the HRB in their own favor in order to control the geopolitical nature of the basin.

Acknowledgements The authors of this paper would like to thank Zaki Shubber for her contribution and assistance in writing this paper, and to two anonymous reviewers for their comments.

Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

References

- ADB. (2005). *Western Basins water resources management and irrigated agriculture development project*. Final report. Asian Development Bank.
- Aggestam, K., & Sundell-Eklund, A. (2014). Situating water in peacebuilding: Revisiting the Middle East peace process. *Water International*, 39(1), 10–22.
- Agreement on the cooperation for the construction and operation of Doosti Dam, The government of Islamic Republic of Iran-Turkmenistan, Signed at Ashghabad on October 20, 1999. <http://rc.majlis.ir/fa/law/show/93319>.
- Agreement on the regimes of Border Rivers, The Imperial Government of Iran-The Union of Soviet Socialist Republics, February 20, 1926.
- Agreement on the regimes of Border Rivers, The Imperial Government of Iran-The Union of Soviet Socialist Republics, February 26, 1921.
- Alam, U. Z. (2002). Questioning the water wars rationale: A case study of the Indus Waters Treaty. *The Geographical Journal*, 168(4), 341–353.
- Allan, J. A., & Allan, T. (2002). *The Middle East water question: Hydropolitics and the global economy* (Vol. 2). London: IB Tauris.
- ANDS. (2008). Afghanistan National Development Strategy. *Report on Water Resources Management*. Afghan Ministry of Energy and Water. Water Sector Strategy (Vol. 2).
- Badykova, N. (2005). Regional cooperation in Central Asia: A view from Turkmenistan. *Problems of Economic Transition*, 48(8), 62–95.
- BBC Persian. (2006). *Starting the project of the railroad Khaf-Herat*. January 31, 2006, http://www.bbc.co.uk/persian/afghanistan/story/2006/07/060729_s-herat-fariab-iran-aid.shtml.
- BBC (2016). *Modi and Ghani opened the Salma Dam*. BBC Farsi. June 4, 2016, http://www.bbc.com/persian/afghanistan/2016/06/160604_k05_slama_dam_. Last visit on 18 October 2017.
- Cascão, A. E. (2009). Changing power relations in the Nile River Basin: Unilateralism vs. cooperation. *Water Alternatives*, 2(2), 245–268.
- Cascão, A. E., Closas, A., Fantini, E., Gebreleul, G., Ide, T., Jobbins, G., Kinna, R., Rocha Loures, F., Mag-sig, B.-O., Matthews, N., McIntyre, O., Menga, F., Mirumachi, N., Moynihan, R., Nicol, A., Oestigaard, T., Rieu-Clarke, A., Selby, J., Sojamo, S., Swatuk, L., Tawfik, R., Verhoeven, H., Warner, J., & Zeitoun, M. (2018). *Why are water wars back on the agenda? And why we think it's a bad idea!*. <https://flows.hypotheses.org/1126>. Published on March 22, 2018. Last visited on April 13, 2018.
- Castro, J. E. (2007). Water governance in the twentieth-first century. *Ambiente & Sociedade*, 10(2), 97–118.
- CFC. (2011). *Afghanistan's transboundary water resources: Regional dimensions*. Norfolk: Civil-Military Fusion Centre (CFC).
- CFC. (2013). *The role of Iran in Afghanistan's reconstruction and development*. Norfolk: Civil-Military Fusion Centre (CFC).
- Cooley, J. K. (1984). The war over water. *Foreign Policy*, 54, 3–26.
- Cox, R. W. (1981). Social forces, states and world orders: Beyond international relations theory. *Millennium*, 10(2), 126–155.
- Cullather, N. (2002a). *From new deal to new frontier in Afghanistan: Modernization in a buffer state*. New York: Project on the Cold War as Global Conflict, International Center for Advanced Studies, New York University.
- Cullather, N. (2002b). Damming Afghanistan: Modernization in a buffer state. *The Journal of American History*, 89(2), 512–537.
- De Stefano, L., Edwards, P., De Silva, L., & Wolf, A. T. (2010). Tracking cooperation and conflict in international basins: Historic and recent trends. *Water Policy*, 12(6), 871–884.
- De Villiers, M. (1999). *Water wars: Is the world's water running out?*. London: Weidenfeld and Nicolson.
- Dinar, S. (2006). Trans-boundary water co-operation as a tool for conflict prevention and broader benefit sharing. *Environmental Change and Security Program Report*, 12, 115.
- Dolatyar, M., & Gray, T. S. (2000). The politics of water scarcity in the Middle East. *Environmental Politics*, 9(3), 65–88.
- Dukhovny, V. A., & Sokolov, V. (2003). *Lessons on cooperation building to manage water conflicts in the Aral Sea Basin*. Paris: UNESCO.
- EastWest. (2011). Enhancing security in Afghanistan and Central Asia through Regional Cooperation on Water. Amu Darya Basin consultation report.
- Edwards, M. (2003). The New Great Game and the new great gamers: Disciples of Kipling and Mackinder. *Central Asian Survey*, 22(1), 83–102.
- Elisseeff, V. (Ed.). (2000). *The silk roads: Highways of culture and commerce*. New York: Berghahn Books.

- FAO. (2009). *Irrigation in the Middle East region in figures*. AQUASTAT Survey 2008. Water reports 34 (K. Frenken, Ed.). Rome. ISBN 978-92-5-107661-3.
- FAO. (2013). *Irrigation in Central Asia in figures*. AQUASTAT Survey 2012. Water reports 39 (K. Frenken, Ed.). Rome. E-ISBN 978-92-5-106316-3.
- Favre, R., & Kamal, G. M. (2004). *Watershed ATLAS of Afghanistan*. Kabul: First edition-working document for planners, Afghanistan Research and Evaluation Unit.
- Felix, J., & May, A. (2018). Water crisis: Water war begins to rear its head. *Independent Online (IOL)*. <https://www.iol.co.za/capeargus/news/watercrisis-water-war-begins-to-rear-its-head-12763480>. Last visited on April 12, 2018.
- Gerlak, A. K., Varady, R. G., & Haverland, A. C. (2009). Hydrosolidarity and international water governance. *International Negotiation*, 14(2), 311–328.
- Gleick, P. H. (1994). Water, war & peace in the Middle East. *Environment Science and Policy for Sustainable Development*, 36(3), 6–42.
- Hamshahri online news. (2017). *انتقاد روحانی از سندسازی بی‌رویه همسایگان*. July 4, 2017, <http://www.hamshahrionline.ir/details/375052>.
- Hanna, R., & Allouche, J. (2018). Water nationalism in Egypt: State-building, nation-making and Nile hydropolitics. In F. Menga & E. Swyngedouw (Eds.), *Water, technology and the nation-state* (pp. 97–111). Routledge.
- Hopkirk, P. (1994). *The great game: The struggle for empire in Central Asia*. New York: Kodansha Globe.
- Hussein, H. (2016). *An analysis of the discourse of water scarcity and hydropolitical dynamics in the case of Jordan*. Doctoral dissertation, University of East Anglia.
- Hussein, H. (2017). Whose ‘reality’? Discourses and hydropolitics along the Yarmouk River. *Contemporary Levant*, 2(2), 103–115.
- Hussein, H., & Grandi, M. (2017). Dynamic political contexts and power asymmetries: The cases of the Blue Nile and the Yarmouk Rivers. *International Environmental Agreements: Politics, Law and Economics*, 17(6), 795–814.
- IRNA News. (2015). *Iran supports stability, security in Afghanistan*. December 9, 2015, <http://www.irna.ir/en/News/81871598>.
- Jägerskog, A. (2009). Functional water cooperation in the Jordan River basin: Spillover or spillback for political security? In H. G. Brauch et al. (Eds.), *Facing global environmental change. Hexagon series on human and environmental security and peace*, vol 4. Berlin, Heidelberg: Springer.
- Kamran, H., Yari, E., & Abedi, M. (2017). Environmental security and national security in the context of cross-border hydropolitics developments (case study: Harirud). *Iranian Journal of Geography*, 15(52), 305–328.
- King, M., & Sturtewagen, B. (2010). Making the most of Afghanistan’s River Basins. East-West Institute, New York. http://www.ewi.info/system/files/Afghanistan_Water.pdf. Last visited on April 12, 2018.
- Kleveman, L. (2003). *The new great game: Blood and oil in Central Asia*. New York: Grove Press.
- Kraak, E. (2012). Diverging discourses on the Syr Darya. *Geography, Environment, Sustainability*, 5(2), 36–50.
- Krampe, F. (2017). Water for peace? Post-conflict water resource management in Kosovo. *Cooperation and Conflict*, 52(2), 147–165.
- Menga, F. (2016). Reconceptualizing hegemony: The circle of hydro-hegemony. *Water Policy*, 18(2), 401–418.
- Menga, F. (2017). Hydropolis: Reinterpreting the polis in water politics. *Political Geography*, 60, 100–109.
- Meyer, K. E., & Brysac, S. B. (2009). *Tournament of shadows: The great game and the race for empire in Central Asia*. London: Hachette UK.
- Milani, M. M. (2006). Iran’s policy towards Afghanistan. *The Middle East Journal*, 60(2), 235–279.
- Mirumachi, N., & Allan, J. A. (2007). Revisiting transboundary water governance: Power, conflict cooperation and the political economy. In *Proceedings from CAIWA international conference on adaptive and integrated water management: Coping with scarcity*. Basel, Switzerland (Vol. 1215).
- MOE. (2013). Iranian Ministry of Energy (MOE). *Reports on Iran’s transboundary rivers*.
- Molle, F., Mollinga, P. P., & Wester, P. (2009). Hydraulic bureaucracies and the hydraulic mission: Flows of water, flows of power. *Water Alternatives*, 2(3), 328–349.
- Nagheeby, M. (2014). *Analysis of the hydro-political impacts of dam development in transboundary river basins: A case study of the Harirud River Basin*. M.Sc. dissertation, UNESCO-IHE.

- Najafi, A., & Vatanfada, J. (2013). Transboundary water management improvements, the way forward in the Middle East. Case study: Transboundary water management of Iran and neighbors (pp. 135–155). *Geopolitics Quarterly*, Vol 8, No 4, Winter 2013.
- NUPI. (2008). *Afghanistan and regional instability: A risk assessment*. Norway: Norwegian Institute of International Affairs.
- O'Hara, S. L. (2000). Lessons from the past: Water management in Central Asia. *Water Policy*, 2(4–5), 365–384.
- Payam Aftab. (2015). *Osmani: We can say that the Harirud water is under Afghanistan's control*. December 3, 2015, <http://www.payam-aftab.com/fa/doc/news/46521>.
- Pant, H. V. (2010). India in Afghanistan: A test case for a rising power. *Contemporary South Asia*, 18(2), 133–153.
- Penzev, K. (2010). When will the Great Game end? *Oriental Review*, 15. Published on November 15, 2010. <https://orientalreview.org/2010/11/15/when-will-the-great-game-end/>.
- Peterson, S. (2013). Why a dam in Afghanistan might set back peace. *Christian Science Monitor*. July 30, 2013, <http://www.csmonitor.com/World/Asia-South-Central/2013/0730/Why-a-dam-in-Afghanistan-might-set-back-peace>.
- Phillips, D., Daoudy, M., Öjendal, J., Turton, A., & McCaffrey, S. (2006). *Trans-boundary water cooperation as a tool for conflict prevention and broader benefit-sharing*, Global Development Studies No.4. Stockholm, Sweden: Ministry of Foreign Affairs.
- PressTV. (2017). *Iran official urges pressure on Turkey over dams*. June 11, 2017, <http://www.press.tv.com/Detail/2017/06/11/524896/Iran-Tigris-Euphrates-Turkey-GAP-Iraq-Syria>.
- Radio Afghanistan. (2002). Karzai-Khatami Press conference. August 13, 2002.
- Radio Liberty. (2013). Insecurity springs from Afghan dam projects. March 22, 2013. <https://www.rferl.org/a/afghan-dam-projects/24936270.html>.
- Rejepova, T. (2013). Turkmenistan and Afghanistan sign agreement over TAPI gas pipeline. *The Central Asia-Caucasus Analyst*, 7. Published on August 09, 2013. <http://www.cacianalyst.org/publications/field-reports/item/12790-turkmenistan-and-afghanistan-sign>.
- Remans, W. (1995). Water and war. *Humantäres Völkerrecht*, 8(1), 1–14.
- Sadoff, C. W., & Grey, D. (2002). Beyond the river: The benefits of cooperation on international rivers. *Water Policy*, 4(5), 389–403.
- Sadoff, C. W., & Grey, D. (2005). Cooperation on international rivers: A continuum for securing and sharing benefits. *Water International*, 30(4), 420–427.
- Salman, S. M. (2007). The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on international water law. *Water Resources Development*, 23(4), 625–640.
- Savenije, H. H., & Van der Zaag, P. (2000). Conceptual framework for the management of shared river basins; with special reference to the SADC and EU. *Water Policy*, 2(1–2), 9–45.
- Schulz, M. (1995). Turkey, Syria and Iraq: A hydropolitical security complex. In L. Ohlsson (Ed.), *Hydropolitics: Conflicts over water as a development constraint* (pp. 91–122). London: Zed Books Ltd.
- Shargh Daily News. (2013). خشکی در کمین شرق ایران. October 28, 2013. <http://www.sharghdaily.ir/fa/main/detail/23829>.
- Sinaee, V. (2012). Hydropolitics and Human Security: Water Cooperation in Relations between Iran, Afghanistan and Turkmenistan. *Iranian Review of Foreign Affairs*, 2, 111–133.
- Smith, D. R. (1995). Environmental security and shared water resources in post-Soviet Central Asia. *Post-Soviet Geography*, 36(6), 351–370.
- Smith, D. L. (1996). Central Asia: A new Great Game? *Asian Affairs: An American Review*, 23(3), 147–175.
- Starr, J. R. (1991). Water wars. *Foreign Policy*, 82, 17–36.
- Stewart, R. (2012). *Afghanistan: The Great Game*. A personal view by Rory Stewart. BBC Documentary.
- Swyngedouw, E. (1999). Modernity and hybridity: Nature, regeneracionismo, and the production of the Spanish waterscape, 1890–1930. *Annals of the Association of American Geographers*, 89(3), 443–465.
- Swyngedouw, E. (2009). The political economy and political ecology of the hydro-social cycle. *Journal of Contemporary Water Research & Education*, 142(1), 56–60.
- Tabnak News. (2013). *Afghans dry up Mashhad?* October 28, 2013, <http://khabarfarsi.com/ext/6977397>.
- Tanner, S., & Todd, R. (2002). *Afghanistan: A military history from Alexander the Great to the Fall of the Taliban* (p. vii351). New York: Da Capo Press.
- The Economist. (2007). *The Great Game revisited India and Pakistan are playing out their rivalries in Afghanistan*. The Economist. March 22, 2007, <http://www.economist.com/node/8896853>.

- Thomas, V., & Warner, J. (2015). Hydropolitics in the Harirud/Tejen river basin: Afghanistan as hydro-hegemon? *Water International*, 40(4), 593–613.
- Tolo News (TN). (2013). *BA REWAYATE DIGAR: Water resources of Afghanistan*. August 26, 2013, <http://www.tolonews.com/en/ba-rewayate-digar/11685-ba-rewayate-digar-water-resources-of-afghanistan>.
- Tolo News (TN). (2015a). *Salma Dam Renamed Afghan-India Friendship Dam*. August 27, 2015, <http://www.tolonews.com/en/afghanistan/21105-salma-dam-renamed-afghan-india-friendship-dam>.
- Tolo News (TN). (2015b). *Abdullah urges regional cooperation at high level water conference*. June 9, 2015, <http://www.tolonews.com/en/afghanistan/19924-Abdullah-urges-regional-cooperation-at-High-Level-Water-Conference>.
- UNECE. (2011). *Second assessment of transboundary rivers, lakes and groundwaters*. New York: UNITED NATIONS.
- U.S. Government Global Water Strategy. (2017). USAID publication at https://www.usaid.gov/sites/default/files/documents/1865/Global_Water_Strategy_2017_final_508v2.pdf.
- Wadsam News. (2013). *Salma dam to be completed in 9 months: Afghan Ministry of Energy and Water*. September 7, 2013, <http://www.wadsam.com/salma-dam-to-be-completed-in-9-months-afghan-ministry-of-energy-and-water-232/>.
- Warner, J. F. (2008). Contested hydrohegemony: Hydraulic control and security in Turkey. *Water Alternatives*, 1(2), 271–288.
- Warner, J. (2012). Three lenses on water war, peace and hegemonic struggle on the Nile. *International Journal of Sustainable Society*, 4(1–2), 173–193.
- Warner, J., Mirumachi, N., Farnum, R. L., Grandi, M., Menga, F., & Zeitoun, M. (2017). Transboundary ‘hydro- hegemony’: 10 years later. *Wiley Interdisciplinary Reviews: Water*, 4(6), e1242.
- Washington Post. (2014). *Transcript: Hamid Karzai says U.S.-Afghan relationship ‘has been at a low point for a long time’*. March 3, 2014, http://www.washingtonpost.com/world/hamid-karzai-says-us-afghan-relationship-has-been-at-a-low-point-for-a-long-time/2014/03/02/945dbc18-a1da-11e3-b8d8-94577ff66b28_story.html.
- Waterbury, J. (1979). *Hydropolitics of the Nile valley*. Syracuse, NY: Syracuse University Press.
- Wegerich, K. (2008). Hydro-hegemony in the Amu Darya basin. *Water Policy*, 10(S2), 71–88.
- Wester, P., Rap, E. R., & Vargas-Velázquez, S. (2009). The hydraulic mission and the Mexican hydrocracy: Regulating and reforming the flows of water and power. *Water Alternatives*, 2(3), 395–415.
- Westing, A. H. (Ed.). (1986). *Global resources and international conflict: Environmental factors in strategic policy and action*. Oxford: Oxford University Press.
- Wolf, A. T. (1998). Conflict and cooperation along international waterways. *Water Policy*, 1(2), 251–265.
- Wolf, A. T. (2007). Shared waters: Conflict and cooperation. *Annual Review of Environment and Resources*, 32, 241–269.
- Yoffe, S., Wolf, A. T., & Giordano, M. (2003). Conflict and cooperation over international freshwater resources: Indicators of basins at risk 1. *JAWRA Journal of the American Water Resources Association*, 39(5), 1109–1126.
- Zeitoun, M., Cascão, A. E., Warner, J., Mirumachi, N., Matthews, N., Menga, F., et al. (2017). Transboundary water interaction III: Contest and compliance. *International Environmental Agreements: Politics, Law and Economics*, 17(2), 271–294.
- Zeitoun, M., & Mirumachi, N. (2008). Transboundary water interaction I: Reconsidering conflict and cooperation. *International Environmental Agreements: Politics, Law and Economics*, 8(4), 297.
- Zeitoun, M., & Warner, J. (2006). Hydro-hegemony—A framework for analysis of trans-boundary water conflicts. *Water Policy*, 8(5), 435–460.